

WHAT IS CLAIMED IS:

CLAIM 1. An ophthalmic preparation comprising a glycoprotein derived from one of mammalian milk and a milk byproduct.

CLAIM 2. An ophthalmic preparation in accordance with Claim 1 wherein the glycoprotein component is derived from dairy whey.

CLAIM 3. An ophthalmic preparation comprising a glycoprotein component substantially free of: lactoferrin; immunoglobulin; beta-lactoglobulin; alpha-lactalbumin; and bovine serum albumin.

CLAIM 4. An ophthalmic preparation in accordance with Claim 3 wherein the glycoprotein containing components have a molecular weight of from about 3,000 daltons to about 250,000 daltons.

CLAIM 5. An ophthalmic preparation in accordance with Claim 3 wherein the glycoprotein containing components have a carbohydrate content of about 3% by weight to about 50% by weight.

CLAIM 6. An ophthalmic preparation in accordance with Claim 3 wherein said preparation is in the form of one of a solution, an ointment and an ocular insert.

CLAIM 7. An ophthalmic preparation in accordance with Claim 3 wherein the glycoprotein is present in an amount from about 0.001% to about 10.0% by weight.

CLAIM 8. An ophthalmic preparation in accordance with Claim 3 wherein the glycoprotein is present in an amount from about 10% to about 90% by weight.

CLAIM 9. An ophthalmic preparation in accordance with Claim 1 wherein the glycoprotein is complexed with at least one component selected from the group consisting of a lipid, phospholipid and lipoprotein.

CLAIM 10. An ophthalmic preparation in accordance with Claim 9 wherein the lipid component is present in the amount of 0.01% to about 30% of the complex.

CLAIM 11. An ophthalmic preparation in accordance with Claim 1 wherein the glycoprotein is autoclavable.

CLAIM 12. An ophthalmic preparation in accordance with Claim 1 further comprising a material selected from the group consisting of a buffering agent; a viscosity modifying agent; a tonicity modifying agent; a humectant compound; and a therapeutic drug.

CLAIM 13. An ophthalmic preparation in accordance with Claim 3 wherein said glycoprotein is derived from sweet whey.

CLAIM 14. An ophthalmic preparation in accordance with Claim 13, wherein said glycoprotein is derived from purified whey .

CLAIM 15. A method of treating dry eye in a mammal comprising administering an ophthalmic preparation to said mammal in need thereof an amount of a glycoprotein component that is contained therein and that is effective to treat the dry eye of said mammal, wherein the glycoprotein component is substantially free of: lactoferrin; immunoglobulin; beta-lactoglobulin; alpha-lactalbumin; and bovine serum albumin.

CLAIM 16. The method of Claim 15, wherein said effective amount of the glycoprotein component is from about 0.01 mg to about 5.0 mg per dose.

CLAIM 17. The method of Claim 15, wherein said effective amount of the glycoprotein component is from about 5.0 mg to about 20.0 mg per dose.

CLAIM 18. The method of Claim 15, wherein said effective amount of the glycoprotein component is from about 20.0 mg to about 200 mg per dose.

CLAIM 19. A therapeutic package for dispensing to, or for use in dispensing to, a patient being treated for dry eye comprising:

one or more unit doses, each such unit dose comprising an amount of glycoprotein therein such that periodic administration of one or more of said unit doses is effective to treat said dry eye condition, and

a finished pharmaceutical container therefore, said container containing said unit dose or multiple doses, said container further including labeling;

said labeling directing the use of said package in the treatment of said dry eye condition in a dosage regimen under which the delivery of said glycoprotein is confined to the period during the day proximate to the time of day at which the patient requires treatment, and further directing the use of said package in conjunction with the concomitant administration to said patient of one or more unit doses providing a therapeutically effective amount of glycoprotein to said patient.

CLAIM 20. A package according to Claim 19 in which said glycoprotein is substantially free of: lactoferrin; immunoglobulin; beta-lactoglobulin; alpha-lactalbumin; and bovine serum albumin.

CLAIM 21. A package according to Claim 19 in which the delivery of said glycoprotein is directed to be confined proximate to the time of waking and the delivery of said glycoprotein is confined proximate to the time of onset of sleeping.

CLAIM 22. A therapeutic package for dispensing to, or for use in dispensing to, a patient being treated for dry eye comprising:

one or more unit doses, each such unit dose comprising an amount of glycoprotein therein such that periodic administration of one or more of said unit doses is effective to

treat said dry eye condition, wherein said glycoprotein is substantially free of: lactoferrin; immunoglobulin; beta-lactoglobulin; alpha-lactalbumin; and bovine serum albumin; and

a finished pharmaceutical container therefore, said container containing said unit dose or multiple doses, said container further containing or comprising labeling;

said labeling directing the use of said package in the treatment of said dry eye condition in a dosage regimen under which the delivery of said glycoprotein is one or more times daily, or as directed by a physician.

CLAIM 23. A package according to Claim 22 wherein said labeling directs the use of said package in the treatment of dry eye induced by an activity selected from the group consisting of: contact lens wear and prolonged viewing of a computer screen.

CLAIM 24. A package according to Claim 22 that is produced by form, fill and seal manufacturing wherein each container contains from about 0.50 ml to about 1.50 ml of glycoprotein solution.

CLAIM 25. A package according to Claim 22 comprising a bottle, dropper tip and cap wherein each bottle contains from about 2.0 ml to about 30.0 ml of glycoprotein solution.

CLAIM 26. A package according to Claim 24 in which said unit dose containers are provided to accommodate an uninterrupted dosage regimen basis of at least one month.